AMENDMENT

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Amended) A scanning device for reducing compensation memory requirement, comprising:

an input device for inputting an even data value and an odd data value;

an application specific integrated circuit coupled to the input device for receiving the even ~~compensation~~ data value and the odd ~~compensation~~ data value, performing a computation using the even ~~compensation~~ data value, the odd ~~compensation~~ data value and a preset value to produce an even compensation value and an odd compensation value, and averaging the even compensation value and the odd compensation value to produce an averaged odd-even compensation value; and

a compensation memory unit coupled to the application specific integrated circuit for holding the averaged odd-even compensation value.

2. (Original) The scanning device of claim 1, wherein the device further includes:

an image memory unit coupled to the application specific integrated circuit for holding a plurality of image data values; and

an input/output interface coupled to the application specific integrated circuit for accessing the image data values.

3. (Amended) The scanning device of claim 1, wherein the input device further includes:

an ~~alternate-sensing~~ alternative-sensing device, wherein the ~~alternate-sensing~~ alternative-sensing device performs a plurality of alternate scanning operations on a document an sequentially obtains a plurality of alternately scanned pixels; and

an analogue/digital converter coupled to the ~~alternate-sensing~~ alternative-sensing device for digitizing the alternately scanned pixel data in analogue format into even data values and odd data values and transferring the even data values and the odd data values to the application specific integrated circuit.

4. (Amended) The scanning device of claim 1, wherein the input device further includes:

a linear sensing device, wherein the linear sensing device performs a plurality of linear scanning operations on a document and sequentially obtains a plurality of linearly scanning pixels; and

an analogue/digital converter coupled to the linear sensing device for digitizing the linearly scanned pixel data in analogue format into even data values and odd data values and transferring the even data values and the odd data values to the application specific integrated circuit.

5. (Original) A scanning method for reducing memory capacity requirement of a compensation memory unit, comprising the steps of:

providing an even compensation value for compensating even-numbered pixels and an odd compensation value for compensating odd-numbered pixels; and

averaging the even compensation value and the odd compensation value to produce an averaged odd-even compensation value.

6. (Original) The scanning method of claim 5, wherein the method further includes using the odd-even compensation value to compensate the even-numbered pixels and the odd-numbered pixels during a scanning operation.